

Protein expression in mammalian cells**Methods and protocols****James L. Hartley (ed)****Methods in molecular biology; vol. 801, 2012****Humana Press – Springer Verlag, Heidelberg****ISBN: 978-1-61779-351-6****Pages: 287; Figures: 48; €94,95**

Twelve pages by Dr. James L. Hartley (National Cancer Institute, Frederick, MD, USA; editor of this interesting book) are telling the reader why do we care about protein expression in mammalian cells and *the aim of this volume is to provide guidance for those wishing to produce recombinant proteins, and who may be considering doing so in mammals*. The reader got immediately the feeling to be guided by a great expert doing protein production in mammalian cells in the every day life (a great merit of the book and a great personal feature of Dr. Hartley): the detailed step by step protocols given in each of the sixteen chapters leaves the reader with the comfortable feeling that he too can afford that goal,

when in need. Actually, proteins are fundamental to many aspects of biology and biotechnological considering their place and role in the convergent technologies. The production of proteins thus merges as one of the key features of present day biology. Having said that, I have just to tell the reader that this book is really a great help for all those that wish to enter the field and I am sure even for those who are already involved with recombinant protein production in mammalian cells. I would like to stress that the book is not speaking just for those applying protein production for the biotechnology industry, not at all, the book is intended as well for basic researchers aimed to study native or recombinant proteins to highlight (just to mention a few topics) protein misfolding or the role of proteins in cancer and in general is intended for all those scientists aiming to contribute to solve the many *mysteries* still connoting the protein world.

How much, with what activities, where and when expressed, how mutated or modified and interacting with what partners are some of the questions that the reader will find well discussed in this well illustrated and well written book; in other words, the reader will find the

tools to plane experiments hopefully aiming to get some answers to those questions (always with an applied focus to the production of the proteins). Quite interesting there are few chapters dealing with the Baculoviruses (here *Autographa californica*), viruses already used in biotechnology for protein expression in insect cells, which are unable to replicate in mammalian cells if not engineered to do this as instructed in these detailed step by step protocols. Transient recombinant protein expressions is discussed in several chapters and in several aspects, quite relevant the reader is told on how to optimize the secretion of antibodies but even on how to improve cytoplasmic expression in mammalian cells.

For those entering the field I have to tell that the gosh behind the term *mammalian cells* has a body which names are embryonic kidney and Chinese hamster ovary cells, the *bioreactors* able to ensure blockbuster protein productions for commercial biopharma.

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